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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/628,929	07/28/2000	Joe Cargnelli	9351-21/HSF	3626

1059 7590 03/01/2002

BERESKIN AND PARR  
SCOTIA PLAZA  
40 KING STREET WEST-SUITE 4000 BOX 401  
TORONTO, ON M5H 3Y2  
CANADA

EXAMINER

FORD, JOHN K

ART UNIT PAPER NUMBER

3743

DATE MAILED: 03/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/628 929

Applicant(s)

Cargnelli + Gopal

Examiner

Ford

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11-21-01.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 10-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

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Applicant's election of the first species of Figure 1, all claims, according to applicant, readable thereon is acknowledged. This election was made without traverse.

Applicants election of the invention of Group I (method claims 1-9) with traverse is noted. Applicant argues that the Examiner is wrong on distinctness (when the Examiner states they are distinct) and then to avoid "doubt" states that the two groups are patentably distinct.

The Examiner believes that they are distinct for the reasons set forth <sup>in</sup> the earlier office action, none of which reasons have been argued by Applicant. Moreover, Applicant has taken mutually contradictory positions in simultaneously arguing that Groups I and II are not distinct and distinct depending on which sentence is read. The traverse is unpersuasive and the restriction/election requirement is made Final. An action on the merits as to claims 1-9 follows.

The drawings are objected to because Figures 2-7 do not comply with 37 CFR 1.84(p)(5) because they either lack proper reference numerals or use reference numerals not mentioned in the specification. These drawings are also replete with blank circles with arrows and other extraneous writings (e.g. drafting drawing boxes etc.) which also must be removed to lend clarity. Correction is required.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

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*in proposed drawing corrections*  
No further delays <sup>in proposed drawing corrections</sup> will be considered an acceptable response.

A substitute specification ~~(the original was printed so high on the page that the holes punched to enter it into the file wrapper have punched into the text. The same is true of some of the drawings claims)~~ is required pursuant to 37 CFR 1.125(a). ~~however,~~

A substitute specification filed under 37 CFR 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR 1.121. If the substitute specification contains additional subject matter not of record, the substitute specification must be filed under 37 CFR 1.125(b) and must be accompanied by: 1) a statement that the substitute specification contains no new matter; and 2) a marked-up copy showing the amendments to be made via the substitute specification relative to the specification at the time the substitute specification is filed.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, and 7-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jacobs et al. Or Weitman or Marlow or JP 56-119434.

In each of these references water is sprayed into relatively warm process gas to produce saturated or nearly saturated conditions. The saturated process gas is subsequently cooled to condense out excess moisture. The excess moisture is drained or otherwise eliminated. In each of the references, the process gas is subsequently reheated to obtain a desired final temperature and relative humidity.

Regarding claims 7-9, each of these references teaches controlling temperature and relative humidity to any desired set points. No particular significance is attached to the claimed apparatus performing this method.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 2 above, and further in view of Allen et al.

Allen discloses a steam type humidifier 12. To have used this type of humidifier in place of the liquid contact type would have been obvious because of its relatively small size compared to that used in the prior art.

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Claims 5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 2 above, and further in view of Du Bose.

Du Bose teaches col. 1, <sup>lines</sup>~~lines~~ 12-17 the need to control temperature and humidity of the oxidant supply to a fuel cell to avoid problems detailed in col. 1 lines 50-55. To have used any of the prior art systems to condition oxidant (typically air) to a fuel cell to a particular temperature and humidity to insure proper operation of the fuel cell would have been obvious.

Regarding claims 7-9, in col. 5, lines 41-45, De Bose discloses a preferred air inlet temperature of 75°C <sup>and a dew point of 70°C</sup>. These values lie within the ranges of drybulb temperatures and Rh values that the prior art equipment would necessarily have operated in to achieve these final temperature and humidity conditions.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 5 above, and further in view of Gross.

Gross teaches a line heater at 15 to maintain output gas from container 13 in a gaseous state (i.e. condensation) as it is transported to a reactor 11.

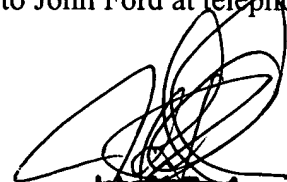
To have used a line-heater such as taught by Gross in the prior art to avoid condensation if the temperature/Rh system was located an appreciable distance from the fuel cell would have been obvious to compensate for ambient heat losses which would likely cause condensation.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to John Ford at telephone number (703) 308-2636.



**John H. Ford**  
**Primary Examiner**

J. Ford/eb

February 21, 2002